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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/540,987

06/27/2005

Hidetoshi Satake

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09/21/2006

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EXAMINER

LAZO, THOMAS E

ART UNIT

PAPER NUMBER

3745

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/540,987

Applicant(s)

SATAKE ET AL.

Examiner

Thomas E. Lazo

Art Unit

3745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>6/27/05 5/17/06</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Specification

The abstract of the disclosure is objected to because it is more than 150 words in length. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakada (4,416,344). Nakada discloses a hydraulic circuit in a work vehicle with an undercarriage, a revolving superstructure rotatably mounted atop the undercarriage, a hydraulic source 21 disposed at the revolving superstructure, a plurality of work hydraulic cylinders 17 disposed at the undercarriage, that are to be driven by pressure oil from the hydraulic source 21, a control valve 20 that controls flow of pressure oil from the hydraulic source 21 to the work hydraulic cylinders 17, an operating device (operator operates a switch or lever) that issues a command for drive of the control valve 20, valve devices 26,27 each comprising a check valve 27, each provided in correspondence to one of the plurality of work hydraulic cylinders 17 to allow and prohibit outflow of pressure oil from a work hydraulic cylinder 17, a commanding device (operator operating valve 20) that outputs one of a command for allowing extension/contraction

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(position D or U) and a command for prohibiting extension/contraction (position N) for each of the work hydraulic cylinders 17, and a control device (operator operating valves 26 and fluid pressure override of check valve 27) that controls each of the valve devices so as to allow outflow of pressure oil from the work hydraulic cylinder by invalidating a check valve function 27 thereof in response to the command for allowing extension/contraction output from the commanding device and so as to prohibit outflow of pressure oil from the work hydraulic cylinder 17 with the check valve 27 in response to the command for prohibiting extension/contraction output by the commanding device, the hydraulic circuit is formed so that oil flows between the undercarriage and the revolving superstructure via a pair of pipelines 23,25 through which drive pressure is supplied to the work hydraulic cylinders 17 and the drive pressure is then returned and that the pair of pipelines 23,25 are branched in the undercarriage to connect with each of the work hydraulic cylinders 17, and the valve devices 26,27 are constituted as switching valves, each comprising a check valve, which is controlled by an electrical signal (solenoid operated).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakada, as applied to claim 1 above, as evidenced by Okamoto et al. (JP11092085A). Nakada discloses

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all of the claimed subject matter except for the valve devices being pilot-operated check valves controlled by a pilot pressure, wherein a pilot hydraulic circuit is formed so as to guide the pilot pressure generated at the revolving superstructure in response to an operation at the operating device to the undercarriage via a single pilot pipeline and so as to branch the pilot pipeline in the undercarriage to connect with each of the valve devices.

Official notice is taken that using pilot-operated check valves with a pilot hydraulic circuit as claimed are common. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the solenoid operated valve devices Nakada to be pilot-operated check valves controlled by a pilot pressure, wherein a pilot hydraulic circuit is formed so as to guide the pilot pressure generated at the revolving superstructure in response to an operation at the operating device to the undercarriage via a single pilot pipeline and so as to branch the pilot pipeline in the undercarriage to connect with each of the valve devices as a matter of engineering expedience. Evidence of such structure in an outrigger working machine is shown by Okamoto et al.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakada, as applied to claim 1 above, in view of Hitachi (JP64-24163 U). Nakada discloses all of the claimed subject matter except for a detection device that detects an operation of the operating device, wherein the control device controls the valve devices so as to allow outflow of pressure oil from the work hydraulic cylinders if the command for allowing extension/contraction is output from the commanding device and the operation of the operating device is detected with the detection

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device and so as to prohibit outflow of pressure oil from the work hydraulic cylinders under other conditions.

Hitachi teaches for a hydraulic circuit with work hydraulic cylinders and that there is a detection device 23 that detects an operation of the operating device 30, wherein the control device controls the valve devices 4 so as to allow outflow of pressure oil from the work hydraulic cylinders 3 if the command for allowing extension/contraction is output from the commanding device and the operation of the operating device 30 is detected with the detection device 23 and so as to prohibit outflow of pressure oil from the work hydraulic cylinders 3 under other conditions for the purposes of safety.

Since Nakada and Hitachi are both hydraulic circuits, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the hydraulic circuit of Nakada, based on the teachings of Hitachi, to include a detection device that detects an operation of the operating device, wherein the control device controls the valve devices so as to allow outflow of pressure oil from the work hydraulic cylinders if the command for allowing extension/contraction is output from the commanding device and the operation of the operating device is detected with the detection device and so as to prohibit outflow of pressure oil from the work hydraulic cylinders under other conditions for the purposes of safety.

Prior Art

Prior art made of record but not relied upon is considered pertinent to Applicant's disclosure and consists of eight patents.

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Claxton, Phillips, Bianchetta, Bridwell, Ishamaru et al., Shibano et al., Muto, and Shimizu are cited to show hydraulic circuit for outriggers of work vehicles with undercarriages and revolving superstructures.

Contact Information

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Thomas Lazo whose telephone number is (571) 272-4818. The examiner can normally be reached on Monday-Friday from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Edward Look, can be reached on (571) 272-4820. The fax phone number for this Group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thomas E. Lazo
Primary Examiner
Art Unit 3745
September 12, 2006